

NOAA Ship KA'IMIMOANA



packages. In addition to supporting blue-water oceanography and climate change studies, the *Ka'imimoana* supports fisheries research. Recently the ship conducted dive operations around French Frigate Shoals in support of the National Marine Fisheries Service Honolulu Lab. Divers conducted surveys of reef fish communities as part of the annual assessment of monk seal forage bases.

The ship has a large working deck designed and outfitted to handle deep-sea moorings and other oceanographic and atmospheric equipment. The ship's oceanographic winch holds 10,000 meters of electrical conducting cable used to lower sophisticated instrument packages into the water column.



A balloon is launched to measure atmospheric conditions



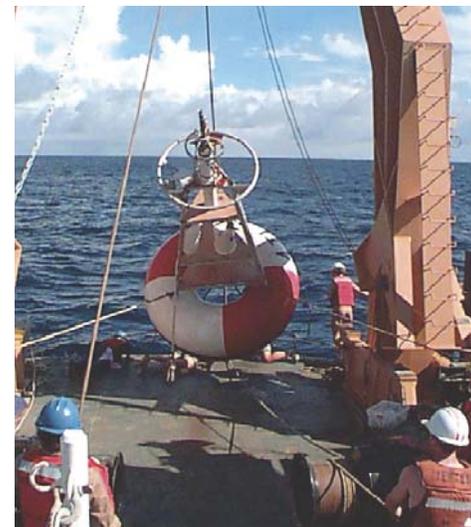
Acoustic Doppler current profiler is deployed to measure ocean currents

Ka'imimoana, Hawaiian for Ocean Seeker, is a converted U.S. Navy T-AGOS class vessel. The ship supports NOAA's oceanographic and climatic research in the equatorial Pacific Ocean. The ship is dedicated to implementing and maintaining NOAA's Office of Oceanic and Atmospheric Research, Pacific Marine Environmental Laboratory's Tropical-Ocean-Atmosphere (TAO) Project. The TAO project plays a critical role in improving our understanding of the role of the tropical ocean in modifying world climate and El Niño/La Niña prediction. *Ka'imimoana's* primary mission is to deploy, recover, and service deep-sea moorings that measure ocean currents and temperatures and atmospheric conditions throughout the equatorial regions of the Pacific Ocean. The ship replaces and repairs approximately 14 deep sea moorings per cruise.

In addition to providing mooring support, the *Ka'imimoana* conducts numerous oceanographic and atmospheric investigations while underway. The ship collects continuous observations of ocean surface temperature, salinity, and carbon dioxide content, and continuous underway measurements of upper oceanic currents and lower atmospheric winds, temperature, and moisture. It also conducts conductivity-temperature-depth (CTD) profiles of an ocean column, down to 4,000 meters and takes soundings of atmospheric parameters using balloon-borne instrument

Ka'imimoana has computer and laboratory facilities to support investigations conducted by NOAA scientists and collaborating researchers. The state-of-the-art computer systems collect data from a multitude of ship and mission sensors, then integrates and stores the data for transfer via high-speed communications to shore facilities on a near real-time basis.

In January 2000, the ship provided support to the Sustainable Seas Expedition's exploration of NOAA's Hawaiian Island Humpback National Marine Sanctuary.



A newly serviced TAO buoy is deployed

Ship Specifications

Length (LOA): 224 ft
Breadth: 43 ft.
Draft: 15 ft.
Displacement: 2,301 tons
Cruising Speed: 10.5 knots
Range: 8,000 nm
Endurance: 30 days
Hull Number: R 333
Call Letters: WTEU
Commissioned Officers: 5
Licensed Engineers: 3
Crew: 13
Scientists: 12 (Max)
Launched: 1988
Delivered to Military Sealift Command: 1989
Transferred to NOAA: August 31, 1993
Commissioned: April 25, 1996
Builder: Halter Marine, Inc. Moss Point, Mississippi

NOAA Marine and Aviation Operations

Since NOAA's beginning, NOAA ships and aircraft have played a critical role in the collection of its oceanographic, atmospheric, hydrographic, fisheries and coastal data. This fleet of platforms is managed and operated by NOAA Marine and Aviation Operations (NMAO), an office made up of civilians and officers of the NOAA Commissioned Corps, the Nation's seventh service. In addition to research and monitoring activities critical to NOAA's mission, NOAA ships and aircraft provide immediate response capabilities for unpredictable events. Most recently, NOAA aircraft provided support to the World Trade Center and Pentagon recovery and clean-up efforts by mapping the wreckage using remote-sensing technology. NOAA survey ships found the wreckage of EgyptAir Flight 990, TWA Flight 800 and John F. Kennedy Jr.'s aircraft. Our ships, aircraft and personnel have also conducted damage assessments after hurricanes and major oil spills such as the *Exxon Valdez*, Persian Gulf War and *New Carissa*.

NOAA's fleet of research and survey ships is the largest fleet of federal research ships in the Nation. The fleet ranges from large oceanographic research vessels capable of exploring the world's deepest ocean, to smaller ships responsible for charting the shallow bays and inlets of the United States. The fleet supports a wide range of marine activities, including fisheries research, nautical charting and mapping, and ocean and climate studies. Many of NOAA's research vessels are unique in their ability to conduct scientific research.

NOAA's fleet of fixed-wing aircraft and helicopters operate throughout the world, providing a wide range of capabilities, including hurricane prediction research, marine mammal and fisheries assessment, and coastal mapping. NOAA aircraft are modified to carry scientists and specialized instrument packages to conduct research for NOAA's missions.

NOAA Commissioned Officer Corps

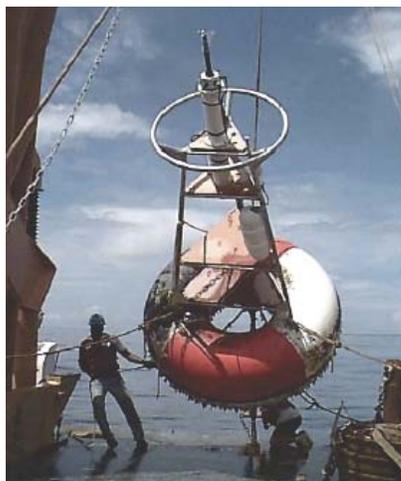
The NOAA Corps is one of the seven uniformed services of the United States, composed of commissioned officers who provide NOAA with an important blend of operational, management, and technical skills that support the agency's science and surveying programs at sea, in the air, and ashore. NOAA Corps officers, in addition to managing and operating ships and aircraft, are also scientists and engineers. Corps officers serve in NOAA's research laboratories and program offices throughout the Nation and in remote locations around the world; for example, an officer serves as station chief at the South Pole, Antarctica.

About NOAA

NOAA conducts research and gathers data about the global oceans, atmosphere, space, and sun, and applies this knowledge to science and service that touch the lives of all Americans.

NOAA warns of dangerous weather, charts our seas and skies, guides our use and protection of ocean and coastal resources, and conducts research to improve our understanding and stewardship of the environment which sustains us all.

A Commerce Department agency, NOAA provides these services through five major divisions: the National Weather Service, the National Ocean Service, the National Marine Fisheries Service, the National Environmental Satellite, Data and Information Service, and Office of Oceanic and Atmospheric Research; and numerous special program offices. More information about NOAA can be found at <http://www.noaa.gov>



TAO buoy is brought aboard for cleaning and maintenance



Routine instrument maintenance is performed

Visit the ship's web site at www.moc.noaa.gov/ka/
For more information, contact NMAO at 301-713-1045
or visit our web site at www.nmao.noaa.gov

